AMENDMENTS TO THE SPECIFICATION

Please replace the last full paragraph on page 6 with the following amended paragraph:

According to the present invention, there is provided an apparatus for recording an image by scanning a photosensitive medium with a light beam generated based on an image signal, comprising recording duty ~~cycle~~ratio detecting means for detecting a recording duty ~~cycle~~ratio of an image to be recorded on the photosensitive medium based on the image signal, and light beam intensity modulating means for modulating the intensity of the light beam based on the detected recording duty ratio.

Please replace the last paragraph on page 6 continuing onto page 7 with the following amended paragraph:

Since the light beam intensity modulating means modulates the intensity of the light beam based on the recording duty ratio, detected by the recording duty ~~cycle~~ratio detecting means, of the image to be recorded on the photosensitive medium, the amount of light of the light beam can be adjusted depending on the image actually recorded on the photosensitive medium.

Please replace the third full paragraph on page 7 with the following amended paragraph:

The recording duty ~~cycle~~ratio detecting means may comprise a low-pass filter. With the low-pass filter used, it is not necessary to use a correcting memory table.

Please replace the fourth full paragraph on page 7 with the following amended paragraph:

The recording duty ~~cycle~~ratio detecting means may comprise means for detecting a recording duty ~~cycle~~ratio corresponding to a given area in the image recorded on the photosensitive medium. With this arrangement, it is not necessary to detect all duty ratios of the image, and the processing operation can be performed at a high speed.

Please replace the last paragraph on page 7 continuing onto page 8 with the following amended paragraph:

If it is not necessary to detect all duty ratios of the image, then the apparatus may further comprise random number applying means for varying the position of the given area in the image with a random number, or random number applying means for varying the size of the given area in the image with a random number, or the light beam intensity modulating means may comprise random number applying means for applying a random number to the detected recording duty ~~cycle~~ratio, and means for modulating the intensity of the light beam based on the recording duty ~~cycle~~ratio to which the random number is applied by the random number applying means. In this manner, it is possible to eliminate beats that may occur between the given area for detecting the recording duty ratio and the recorded image.

Please replace the first full paragraph on page 9 with the following amended paragraph:

According to the present invention, there is also provided an apparatus for recording an image by scanning a photosensitive medium which is fed in an auxiliary scanning direction, with

a light beam generated based on an image signal in a main scanning direction substantially perpendicular to the auxiliary scanning direction, comprising present recording duty ~~cycle~~ratio detecting means for detecting a present recording duty ~~cycle~~ratio of an image to be recorded on the photosensitive medium based on the image signal, light beam intensity modulating means for modulating the intensity of the light beam based on the detected present recording duty ratio, preceding recording duty ~~cycle~~ratio detecting means for detecting a preceding recording duty ~~cycle~~ratio of the image at a position scanned later than the present recording duty ~~cycle~~ratio detecting means in the main scanning direction, intensity modulation correcting means for comparing the detected preceding recording duty ~~cycle~~ratio and the detected present recording duty ~~cycle~~ratio to correct the modulation of the intensity of the light beam with the light beam intensity modulating means.

Please replace the first full paragraph on page 10 with the following amended paragraph:

The preceding recording duty ~~cycle~~ratio detecting means detects a preceding recording duty ~~cycle~~ratio of the image at a position scanned later than the present recording duty ~~cycle~~ratio detecting means in the main scanning direction. The intensity modulation correcting means compares the detected preceding recording duty ~~cycle~~ratio and the detected present recording duty ~~cycle~~ratio with each other to correct the modulation of the intensity of the light beam with the light beam intensity modulating means. Thus, the intensity of the light beam can be corrected finely depending on details of the image.

Please replace the last paragraph on page 10 continuing onto page 11 with the following amended paragraph:

If the preceding recording duty ~~cycle~~ratio is of a value corresponding to the highlight area which is smaller than 25 % of all gradations of the image, and the present recording duty ~~cycle~~ratio is of a value corresponding to an area except the highlight area which is smaller than 25 % of all gradations of the image, then the intensity modulation correcting means may comprise means for correcting the modulation of the intensity of the light beam to cause the intensity of the light beam to return from a given position in the highlight area to a normal intensity. With this arrangement, if the image includes a highlight area and an area other than a highlight area arranged forward in the main scanning direction, then it is possible to prevent the density from being stepped due to an increase in the amount of light applied to the image other than the highlight area.

Please replace the first full paragraph on page 11 with the following amended paragraph:

According to the present invention, there is also provided a method of recording an image by scanning a photosensitive medium with a light beam generated based on an image signal, comprising the steps of detecting a recording duty ~~cycle~~ratio of an image to be recorded on the photosensitive medium based on the image signal, and modulating the intensity of the light beam based on the detected recording duty ratio.

Please replace the last paragraph on page 32 continuing onto page 33 with the following amended paragraph:

In the exposure signal controller 70 shown in FIG. 3, an average recording duty ratio PDUTY in an area of 60 pixels is detected to energize the AOM driver 72. FIG. 8 shows a modified exposure signal controller 70B which has three recording duty ~~cycle~~ratio detectors 154A - 154C for successively detecting respective recording duty ~~cycles~~ ratios PDUTY each for 20 pixels in the main scanning direction. The light beam intensity correcting memory 156 produces amounts of recording light P with respect to the respective light beams L, which are converted by respective D/A converters 159A - 159C into intensity correcting analog signals Sp that control the gains of three voltage control gain varying circuits 218A - 218C. Gain-controlled signals outputted from the voltage control gain varying circuits 218A - 218C are combined by a combiner 226A. In this manner, the amounts of recording light P of the three light beams L can individually be adjusted.

Please replace the last full paragraph on page 33 with the following amended paragraph:

Modification 1: Elimination of possible beats caused by an interference between the halftone dot pattern of a halftone dot image signal and a given area (an area of 3 pixels × 20 pixels in FIG. 7) in which a recording duty ~~cycle~~ratio PDUTY is determined.

Please replace the last paragraph on page 33 continuing onto page 34 with the following amended paragraph:

It has been found that if the size of a given area used for detecting a recording duty ~~cycle~~ratio PDUTY~~,~~ (i.e., the size of ~~a determining~~ area Darea for determining whether the halftone % of an image to be recorded on the photosensitive medium 32 is in a highlight range or a medium range~~,~~) is smaller than a halftone dot size (for example, in the above embodiment, the halftone dot size is about 200 pixels × 200 pixels whereas the size of ~~the determining~~ area Darea is 3 pixels × 20 pixels), then the area of the medium halftone %, where the amount of light should not be increased, is ~~recognized in error~~erroneously recognized as a highlight area.~~, and~~ Accordingly, ~~its~~ the amount of light is increased, and if ~~that~~ this phenomenon occurs periodically, ~~then~~ it will interfere ~~interferes~~ with the halftone dot pattern, resulting in beats that are visually perceived.

Please replace the last full paragraph on page 37 with the following amended paragraph:

To avoid such a gradation inversion phenomenon, ~~the recording duty cycle PDUTY, i.e.,~~ the increase in the amount of light with respect to the detected PDUTY (halftone %~~,~~) should not be as sharp as shown in FIG. 12, but may be set to the amount-of-light control characteristic curve 158 shown in FIG. 5, or may be set to an amount-of-light control characteristic curve 158B where the difference between a highlight level Lh' and the medium level Lm is smaller than with the amount-of-light control characteristic curve 158A, as indicated by the dot-and-dash line in

FIG. 12. The amount-of-light control characteristic curve thus established is capable of preventing the gradation inversion phenomenon from occurring.

Please replace the second full paragraph on page 38 with the following amended paragraph:

FIG. 13 shows, at B, the manner in which the data of the amount of recording light P generated from the light beam intensity correcting memory 156 based on the recording duty ~~cycle~~ratio PDUTY detected by the recording duty ~~cycle~~ratio detector 154 changes with respect to the image date representing the picture pattern 300.

Please replace the last paragraph on page 40 continuing onto page 41 with the following amended paragraph:

As shown in FIG. 14, the exposure signal controller 70E includes, in addition to the components of the exposure signal controller 70 shown in FIG. 3, a preceding recording duty ratio detector 154A for detecting a recording duty ratio at a position scanned later in the main scanning direction, i.e., a preceding position in the main scanning direction, than the recording duty ~~cycle~~ratio detector (referred to as "present recording duty ~~cycle~~ratio detector") 154 which detects a present recording duty ~~cycle~~ratio PDUTY, and an edge detector 312 serving as an intensity modulation correcting means for outputting a control signal Se to shift the common contact of a preceding amount-of-light changing switch 310 as a preceding amount-of-light changing means for detecting, prior to a recording process, the position x0 of an edge (changing point) where the density changes from the light image area 301 to the dark image area 302, from a change in the preceding recording duty ~~cycle~~ratio ADUTY outputted from the preceding

recording duty ratio detector 154A and the highlight level (data) Lh outputted from the light beam intensity correcting memory 156, and changing the amount of recording light P from the highlight level Lh to the medium level Lm when the position of the edge x0 is detected.

Please replace the last full paragraph on page 41 with the following amended paragraph:

In FIG. 14, the readout address of the determining area ADarea in an image for detecting the preceding recording duty ~~cycle~~ratio ADUTY with the preceding recording duty ratio detector 154A is specified by the line memory controller 152 or the CPU 148. As shown in FIG. 15 at A, the determining area needs to be a determining area (preceding determining area) ADarea that is scanned later than the determining area Darea of the recording duty ratio detector 154 by a time interval (preceding time interval) ds.

Please replace the first full paragraph on page 43 with the following amended paragraph:

At a position x2 where the image density changes from the dark image area 302 to the light image area 303, the edge detector 312 applies the control signal Se to connect the input terminal of the D/A converter 159 to the light beam intensity correcting memory 156 when the present recording duty ~~cycle~~ratio PDUTY of the present recording duty ~~cycle~~ratio detector 154 becomes a value to output the highlight level from the light beam intensity correcting memory 156, regardless of the value of the preceding recording duty ~~cycle~~ratio ADUTY of the preceding recording duty ~~cycle~~ratio detector 154A.

Please replace the second full paragraph on page 44 with the following amended paragraph:

In all of the embodiments described above, the recording duty ~~cycle~~ratio detector 154 comprises a digital circuit. However, the recording duty ~~cycle~~ratio detector 154 and the preceding recording duty ~~cycle~~ratio detector 154A may comprise an analog circuit.

Please replace the third full paragraph on page 44 with the following amended paragraph:

FIG. 16 shows an exposure signal controller 70F where the recording duty ~~cycle~~ratio detector 154 is replaced with a low-pass filter in the form of an analog circuit. For the sake of brevity, a single light beam L is shown in FIG. 16. However, a plurality of light beams such as three light beams may be employed.

Please replace the first full paragraph on page 45 with the following amended paragraph:

The low-pass filter 314 has its output value increased depending on the probability of appearance of the value 1 of the binary image signal IS1. Specifically, the low-pass filter 314 outputs a signal SDUTY proportional to the recording duty ~~cycle~~ratio PDUTY of the binary image signal IS1. The signal SDUTY from the low-pass filter 314 is compared by a comparator 320, which outputs a binary signal to control the gain of the voltage control gain varying circuit 218 in a binary fashion.

Please replace the second full paragraph on page 45 with the following amended paragraph:

With the low-pass filter 314 used as the recording duty ~~cycle~~ratio detector, the circuit arrangement is highly simplified because no counting means and memory are required. The comparator 320 may be replaced with an amplifier whose amplifying characteristic curve approximates the amount-of-light control characteristic curve 158 shown in FIG. 5.

Please replace the first full paragraph on page 46 with the following amended paragraph:

According to the present invention, as described above, the recording duty ~~cycle~~ratio of an image to be recorded on the photosensitive medium is detected before the image is actually recorded on the photosensitive medium, and the amount of light applied to record the image is controlled based on the detected recording duty ~~cycle~~ratio. Therefore, the amount of recording light can be corrected highly accurately.

Please delete the present Abstract of the Disclosure.

Please add the following new Abstract of the Disclosure:

The intensity of a light beam is controlled accurately depending on an image to be recorded on a photosensitive medium. An apparatus for recording an image by scanning a photosensitive medium with a light beam generated based on an image signal has a recording duty ~~cycle~~ratio detector for detecting a recording duty ~~cycle~~ratio of an image to be recorded on the photosensitive medium based on the image signal, and a light beam intensity correcting memory for modulating the intensity of the light beam based on the detected recording duty ratio. Since the intensity of the light beam is modulated based on the recording duty ratio of the image recorded on the photosensitive medium, the amount of light of the light beam can be adjusted depending on the image actually recorded on the photosensitive medium.